Solvent-Contaminated Shop Towel, Wipes and Rags Stakeholder Meeting
Morning Session, 10 a.m. to 12 noon (Disposables)
Friday, January 21, 2000
EPA Headquarters, Arlington VA

Background

EPA distributed two regulatory options under consideration by EPA, along with a list of questions for stakeholders. These materials were distributed several days prior to the meeting as well as being available during the meeting. These two options, and the list of questions, are included as Attachment 1. Meeting attendees are included as Attachment 2. Several stakeholders attended both the morning and the afternoon sessions. The agenda of both sessions was the same.

Acronyms used:

CAA	Clean Air Act
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
MACT	Maximum Achievable Control Technology
MSDS	Material Safety Data Sheet
MSWLF	Municipal Solid Waste Landfill
NESHAP	National Emission Standards for Hazardous Air Pollutants
TRI	Toxic Release Inventory

Introduction

Elizabeth Cotsworth opened the morning meeting by thanking the attendees for their time and input on the issue of solvent-contaminated rags. She stated that EPA was seeking to develop regulations that could be readily and effectively implemented balanced against the ability of generators to implement the requirements and protect the environment. When asked about a timeframe, Elizabeth Cotsworth stated that publishing a proposed rule this fiscal year (by September 30, 2000) is desirable.

Dave Bussard then led the discussion. He stated that EPA would favor the issuance of a proposed rule rather than separate guidance or policy. Both Mr. Bussard and Ms. Cotsworth stressed that the intent of the meetings today was to examine the implementability and practicality of the options being considered by EPA. Dave Bussard opened the discussions by asking if there were any questions regarding clarification of Options I and II.

Several stakeholders were concerned with point of generation issues, such that any mechanical device used to separate hazardous solvent from used rags would be considered "treatment" requiring a RCRA Part B permit by the state. Participants also requested clarification of whether hand wringing would be sufficient to meet the exemption criteria for "wringing." Mr. Bussard said that EPA intends, in the proposed rule, to consider such practices (hand wringing and mechanical wringing) to be part of the exemption and therefore not subject to permitting,

although states may adopt different requirements. A lengthy discussion ensued regarding defining wringing in terms of torque applied and the basis for measurement of wringing (e.g., a single towel, a grab sample of towels, or an average).

Participants also requested clarification on the one-drop test and methods by which EPA will determine that a rag or towel contains a listed hazardous waste. Mr. Bussard deferred the discussion of the one-drop test, but stated that the issue of whether a solvent is contained in a rag or towel would be consistent with EPA's past guidance on the "contained-in" policy.

General Comments on Clarity of Options

There was discussion of the types of facilities represented in item (3) in option 2. Two types of facilities not explicitly mentioned are industrial landfills and cement kilns. EPA and several work group members suggested that industrial landfills should be included with the other landfills in (3)(a). EPA intended (3)(e) to include facilities like cement kilns. Several of the stakeholders suggested that (3)(e) could explicitly name other types of facilities. Alternatively, EPA could establish performance-based standards the allow management at facilities or by methods not included in a specific list. A suggestion was made that EPA consider allowing combustion in units subject to Clean Air Act requirements and specify the subparts that would apply.

Several stakeholders questioned whether the closed container requirements would be consistent with Department of Transportation nomenclature/requirements. Others suggested that EPA examine if there would be any conflict between this proposed regulation and existing NESHAPs (particularly those for the aerospace industry and specific requirements for hoods).

Practicality of Solvent Removal by Generators

One stakeholder noted that it might be more efficient to remove and recover solvent at a centralized location (e.g., a laundry) rather than attempt to do so at individual generator sites. One stakeholder noted that wringing is being used by generators. However, some states have special requirements. Minnesota, for example, allows wringing of rags that are characteristically hazardous, but the rags must be kept in a closed container. Massachusetts allows wringing of rags contaminated with both characteristic and listed hazardous waste. The rags must meet the one-drop test.

One stakeholder noted that they successfully use a centrifuge for reusable rags to separate solvent from rags at a generator site. Other stakeholder members present suggested that this issue is better suited for the afternoon session on reusables; discussion proceeded to the next topic.

Ability of Generator to Identify Solvent

Stakeholders were asked by EPA if they would be able to identify the content of their solvents. Work group members suggested that for Option 2, where certain compounds would be banned, EPA include a percentage cutoff.

Generators, particularly in the printer industry, know that they handle hazardous wastes. The generator noted that a Material Safety Data Sheet (MSDS) only includes ingredients present at greater than one percent. In addition, MSDSs for solvent blends do not show specific constituents; oftentimes the MSDS shows chemical classes such as aromatic or aliphatic hydrocarbon. Sometimes the information is on the MSDS for Toxic Release Inventory (TRI) reporting, but the information is not obvious to the casual reader. There was concern that the printers do not have sufficient clout in the marketplace to drive changes to the MSDSs that would enhance the ability of printers to comply with the rule. EPA indicated that they would consider whether the Agency needed to step in to facilitate voluntary improvements in labeling.

One workgroup member noted an increased use of acetone by some generators because it has been delisted as a volatile organic compound.

Container Labeling

EPA's proposed regulatory requirements would include labeling. EPA stated that the intent of the label is to convey a message that these materials are different than brand new towels (although the material is not a hazardous waste). However, EPA is open to suggestions regarding what the exact wording would be. While some work group members had reservations with the phrasing presented by EPA, alternative suggestions were not made during the meeting.

A representative of landfill units could not identify if the labeling would pose any unique operational problems, but would check with other landfill operators.

Combustion and Landfills

There was some concern that combustors may not accept solvent-contaminated rags because the combustors need to be specifically permitted to accept certain materials. Although the options under consideration by EPA would satisfy federal requirements, state regulations may still require a permit amendment.

Representatives of municipal waste combustion units suggested that they already receive and burn materials that are not municipal solid waste (but not hazardous wastes). They must receive a special permit for such materials by the locality, and they expected that obtaining a permit for these contaminated rag materials would not be onerous. They currently receive rags and similar materials from exempt generators, households, etc. but they are all mixed in with the regular trash. If the materials were received in specially labeled containers, they would be put off to one side for inspection and blending with other combustion unit feed. The blending operation is to balance the BTU value of waste inputs. They would prefer to receive such materials in a separate truck, in a container that can either be combusted or can be easily separated prior to combustion.

A stakeholder questioned why the options for municipal waste combustion units included a requirement that they are subject to CAA requirements, while similar requirements were not included for landfills since they are also subject to CAA requirements. Another stakeholder

stated that all combustion units are subject to CAA requirements, but not all are subject to the new MACT standards. EPA clarified that the intent was to identify combustion units subject to the new MACT standards. A stakeholder questioned if this was due to some risk assessment concerns; EPA could not answer during the meeting.

There was discussion regarding the potential of simply banning certain solvents from landfills in order to propose and finalize Option 1. Generators seemed to favor this approach.

"One Drop Test"

Several work group members were concerned with the second condition of the options, where rags would meet the exemption only if they 'do not release any liquid when wrung.' First, EPA clarified this to mean hand wringing rather than mechanical wringing. EPA stated that the preferred option is the one drop test, a method used by Massachusetts to determine when no free liquids are present. Several work group members expressed the following concerns with the one drop test: (1) it is too subjective for enforcement because individuals will squeeze a rag differently and possibly squeeze out solvent when others do not (e.g., the test is affected by human factors); (2) some wipes come pre-moistened and would not pass a 'one drop test' when unused; (3) if disposed in a drum or canister, residual solvent would percolate down so that a rag that 'passed' the test could later 'fail' the test as additional rags are piled on top.

As alternatives, some work group members suggested that EPA specify that 'no free liquids' can be present, where the term is defined to include various technologies so that a generator using such a technology (e.g., a screened bottom drum, wringing, centrifuging) would meet the exclusion without further action. At the same time, the definition should be left open to include additional technologies that may come along in the future. For such technologies, a performance test such as the paint filter test can be used. Other stakeholders disagreed with reliance solely on the Paint Filter Test, but agreed that it should be one of the options available. One stakeholder noted that EPA could use similar regulations presently followed for used oil filters. Another stakeholder noted that some states require the use of screen-bottom drums.

There was some discussion regarding the use of a weight test for determining whether rags met the one-drop test. The stakeholders agreed that a weight test would be impractical due to the varying sizes of rags and towels currently used. Measurement of dry versus contaminated rags would be difficult, particularly when several different sizes are used at a single site. EPA clarified that the five gram standard under consideration was not a weight test but instead a standard that would require performance of some type of solvent removal.

A workgroup member representing a disposables manufacturer was concerned that if EPA scrapped the one drop test, the risk assessment results would show greater risk for more compounds and would lead to more 'banned' solvents in Option 2.

Determining Dry Towels

In Option 2, a 5 gram soiled weight standard was included. Several work group members suggested this would be difficult to meet because there are many different sizes of rags and wipes.

The need or desirability for Option 2 was discussed. All work group members supported Option 1 over Option 2. EPA suggested there are two reasons for considering Option 2: (1) the risk assessment would suggest a risk with the use of particular solvents, or (2) the risk assessment does not suggest any concerns, but states would either not implement Option 1 or accept EPA's risk assessment.

EPA suggested that the risk assessment results would likely present a continuum: the risk assessment using 'dry rags' would conclude that certain constituents could pose a problem, while a risk assessment using rags from a screen bottom drum would show a different (and higher) set of risks. EPA could conduct both assessments.

Stakeholders generally supported the idea of banning those management activities that posed a risk in conjunction with adoption of Option 1.

Closed and Covered Containers

Several members of the workgroup explained their understanding of the differences between "closed" and "covered" containers. In general, covered is less rigorous. Closed has enforcement implications because they may have to be sealed, and would not be practical at the generator site for two reasons: (1) examples of "closed drums" are drums with bungholes used for liquids, which could not be used for solids, and (2) once closed, they would be difficult to re-open. Stakeholders suggested that EPA adopt the use of the term "closed" for transportation purposes and "covered" for on-site management. Other stakeholders argued that EPA should use "closed" for both transportation and on-site management.

Transportation and Shipping

EPA clarified that its intent is to allow "dry" rags to be transported subject to the contaminated shop towels rule being developed. "Wet" rags would need to be manifested and transported as RCRA hazardous waste. Stakeholders noted that determinations regarding shipping containers currently took into consideration DOT requirements, correct packaging needs, and precautions related to the flash point of the solvents on the rags.

Conclusions

At the end of the meeting, stakeholders were asked if the proposed options were viable in terms of moving forward with a proposed rule. Generating industries, handlers of disposable wipes (MSWLFs and MWCs), and disposable wipes manufacturers were in favor of EPA proposing a solvents wipes rule, preferably Option 1. All participants at the morning session were in favor of

EPA proposing a rule that would modify existing RCRA rules associated with the management of solvent-contaminated shop towels, wipes and rags.

Solvent-Contaminated Shop Towel, Wipes and Rags Stakeholder Meeting
Afternoon Session, 1 p.m. to 3 p.m. (Reusables)
Friday, January 21, 2000
EPA Headquarters, Arlington VA

Background

See Background for morning session.

Introduction

Matt Hale opened the afternoon session. He stressed that the intent of the meetings today was to examine the implementability and practicality of the options being considered by EPA. Dave Bussard led the discussion in the afternoon session.

Ability of Generator to Identify Solvent

EPA questioned if it would be possible for generators to demand alternative formulations from their suppliers. However, several stakeholders questioned if EPA could influence or create incentives for formulators to produce solvents without these certain constituents. One stakeholder noted that as a result of various environmental regulations (e.g., air, solid waste) there is increased use of non-petroleum based solvents.

No Free Liquids

Industrial laundry representatives had significant concerns with a possible requirement that the rags not contain free liquids. The rags could be "dry" at the generator site when picked up by a driver, but during transport liquids could settle in the container. The laundry representatives were concerned with either (1) an enforcement inspection en route to the laundry, or (2) the receipt of such materials at the laundry, where the free liquids would be found and the rags would potentially lose their exemption. A stakeholder expressed concern with the potential for passive formation of free liquids with draconian implications for transporters and laundries.

EPA stated that their purpose of specifying no free liquids at the generator site is to better ensure no free liquids throughout the management train, including disposal or laundering. As such, the material would not be a hazardous waste when free liquids were absent but could become a hazardous waste if free liquids were discovered. EPA desired that a more stringent standard be in place for the generator than a simple 'no free liquid' standard, so that as a result of percolation, settling, etc., the rags would continue to have this exemption throughout their management.

In identifying no free liquids at the generator site, the following concerns were raised by stakeholders: (1) if there was a 'one drop test' based on hand wringing, it would be desirable for a representative number to be selected rather than all of them; (2) recordkeeping and reporting to document the exemption from RCRA could be alleviated by specifying technologies in the

regulatory language (e.g., if EPA specified that a screen bottom drum would meet a 'no free liquids' standard, then no additional testing would be required).

The laundry representatives stated that they are already concerned with free liquids and favor steps that would promote their reduction. Presently, materials with free liquids are not accepted and if they do find free liquids in materials from generators the materials are sent back (without a hazardous waste manifest). However, they do not have the confidence that the generators would give them rags that would have no free liquids throughout the management.

EPA suggested three options for free liquids that could be proposed. Laundry representatives had reactions to each of them:

(1) EPA suggestion: no free liquids throughout the generation and management train.
Laundry reaction: it would be unfair to be held accountable for the practices of generators. They would pick up materials that appear to be okay, but if free liquids result from passive management they would be penalized.
(2) EPA suggestion: no free liquids when generated.
Laundry reaction: They would defer to generator on its implementability, and require a certification that they have conducted hand wringing or whatever was required by the regulation. A representative of printing shops suggested that such a certification would be reasonable because it would be part of the regulation. They also questioned when the rag would have to meet this requirement: when placed in the drum, when picked up by the laundry, etc.
(3) EPA suggestion: free liquids are acceptable (no restrictions). This was suggested in the morning session, on the premise that a centrally located solvent removal system would be more economical and efficient than similar devices at the generator site.
Laundry reaction: This would be a novel approach because the laundry industry has spent the last 20 years minimizing free liquids. They would have to think of the implications of this, but would probably not be supportive because it may raise worker safety issues, DOT issues, etc.

Other work group members questioned if the laundries already have to meet a 'no free liquids' standard to qualify for their exemption by various states. According to the laundry representatives, they do. The difference is that the requirements are state enforced while the new standards would be federal requirements, and would therefore 'raise the bar.'

One work group member stated that emphasis on free liquids is misplaced. The concern should not be on the relatively small quantity of solvent that is 'free,' but on the much larger quantity of solvent that is bound in the rag which enters the laundry operation.

Containers

Laundry representatives stated that they would prefer containers that can be handled easily by one person (i.e., the driver), and which offer visual inspection. Presently, they use plastic drums, plastic bags, fabric bags, and fabric bags lined with plastic which all meet these requirements. Laundries stated that clear plastic bags currently are used. These bags allow rapid visual

inspection for free liquids by the driver doing pick ups. Metal containers would limit visual inspection and therefore would be undesirable for the purpose of transport. There are safety concerns about drivers lifting 55-gallon metal drums. False bottom drums can be used at generator sites, but the rags need to be removed and placed in other transport packages, preferably those made of plastic. EPA stated that it would consider the guidance EPA can provide to generators.

Present Laundry Operation

Laundry representatives made the following points concerning their operations:

(1) At most laundries that accept them, reusable rags make up a small but significant portion of their business. They often accept a generator's rags along with other textiles such as uniforms. Other work group members noted that rag laundering is sometimes subcontracted and that some companies, including one of the largest laundries, do not accept rags and wash only uniforms.

(2) At present, some laundries (a small number) conduct pressing of the rags prior to laundering, as a way to remove solvents and meet their effluent discharge limits. The extracted material is usually oily and gooey, rather than like a free-flowing liquid.

(3) At present, wastewater treatment consists of float and settling with some using more aggressive techniques.

(4) Laundries are presently subject to regulation from various environmental and other statutes (e.g., occupational health, transportation). The effluent limitations guideline effort concluded that their current systems are adequate. The status quo resulting from all of these regulations is sufficient.

(5) The laundering of rags is not only subject to competition from other laundries in an area, but also by the disposables market.

In addition, the representatives noted that a new Laundry Environmental Stewardship program has been initiated. Many laundries worked over the past 20 years to eliminate free liquids from items being laundered. They expressed concern that EPA may now encourage the shipment of rags and towels containing free liquids to laundries.

Finally, a stakeholder discussed the operations of one laundry that is using free liquids processed from their wastewater to fuel an on-site boiler. The boiler is used to run the plant. The additional benefit is that the facility can trade their excess air emissions credits.

Discussion of Measuring Throughput

As part of Option 2, EPA suggested that they may propose limitations on materials throughput as a proxy for solvent throughput, since it is impossible to know what the actual throughput is for the solvent compounds. EPA was interested on what types of metrics are currently measured, or could easily be measured, at laundries, such as the quantity of rags processed.

Laundry representatives stated that the total quantity of soiled throughput in pounds is commonly measured. This is done to correctly load the laundry equipment. Additionally, materials are

separated by type (e.g., uniforms and rags are handled separately). The quantity of clean towels sent to customers is not measured. (Even if it was, subtracting one from the other would account for not only solvent, but lint and dirt left behind.) Stakeholders stressed that there is no single method used to launder materials, with each owner using different techniques.

Rags and uniforms are not mixed together by the generator. The rags are stored in the shop floor, and the uniforms are stored in a locker room or other changing area. The laundry service driver keeps them separate as well.

Laundries typically will not know if hazardous waste or nonhazardous solvent would be present. They are not be able to use MSDSs effectively. While laundries do need to rely on MSDSs for OSHA compliance purposes, a generator may give them a notebook of product formulations which may be present based on their usage at the generator site. The book will contain all formulations at the generator site. The laundry, however, would not know which solvents were actually present on the rags, or to what usage level. Additionally, some laundries do not weigh the quantity of material received from their customers.

Discussion of Centrifuge and Pretreatment

One work group member noted their success with using a centrifuge in Minnesota for about ten years. Another work group member suggested that such a practice may work well for a large printer but would be financially impractical for a small printer.

There was concern expressed about the cost of the rule to laundries, particularly for purchasing centrifuge equipment. Only 10 percent of the laundry business consists of solvent-contaminated rags and towels, but often the 90 percent of the remaining business relies on the laundry's agreement to accept the rags and towels. It is impractical to suggest that a laundry subcontract for management of rags and towels. Industrial laundering is a competitive business, and the subcontractor has the potential to take the customer away.

Finally, the laundries questioned the need for centrifuging prior to laundering. The current system relies on POTW treatment of laundry wastewater effluent. This practice was sufficient for EPA's determination not to establish effluent limitation guidelines for the laundry industry, and the basis for EPA's current concern over solvents was unclear.

Discussion of Limiting Solvent Throughput

EPA suggested that they may include in a proposal a limit on the quantity of soiled weight produced by a generator, per month. This would include only the amount of soil (i.e., the weight of the 'clean' rag would be subtracted out). Additionally, the limit may be applicable only to larger laundries. There was concern about the burden associated with taking grab samples of rags.

Laundry representatives stated that the feasibility of the approach would depend where the limit is set. A high number could be easily met. They suggested that the burden in meeting this may fall on the generators.

Stakeholders representing generators suggested that a calculation may be complex if different size rags are used by the generator. Additionally, solids residue on rags include solvent, dirt, water. and not just hazardous substances. EPA suggested that a reason for such a restriction is that 'dry' towels would not count towards a restriction on a laundry's throughput. Therefore, the two principal types of rags of concern to EPA would be 'dry' and 'not dry.' Laundry representatives stated that various types of material tagging is taking place at the laundry, although not necessarily the 'dryness.'

One laundry reported using a soil weight measure. In practice, the laundry used a postage scale to weigh rags and towels and then develop an average weight. They weighed everything initially, but moved to spot checking loads soon after. The laundry reported that the process was easy to implement. They defined a dry towel as one that weighed the same as an unused towel. They would accept anything up to a 100% soil weight, however. No capital investment in centrifuge equipment was required.

Finally, the laundries noted that washers may be loaded based on the pound weight of materials, but the customer is not billed according to weight. Customer cost is based on willingness-to-pay.

Discussion of Closed and Covered Drums

Generators reiterated that they store rags in covered, not closed, containers. They would prefer to continue this practice. Safety cans located on the shop floor must meet requirements established by the local Fire Marshall. Laundries stated that they rely on DOT shipping regulations, and expressed concern about the need to meet shipping regulations that are more stringent than those required by DOT. EPA identified that they are trying to address combustion, air emissions, and leaks both from generator storage and during transport. EPA identified mesh bags as an example of a bag that may leak.

One work group member suggested that a phrase such as 'non porous' could be used to identify suitable containers. This could include plastic containers and other materials that would not leak, or transmit liquid. Another work group member stated that they use a simple cover (overside rectangular unvented hood) over their rags during transport following management in a centrifuge; no vapor is emitted during transport or following removal of the cover. Laundry representatives did not like the possible change. Their current practices are acceptable to the Department of Transportation, so why shouldn't they be acceptable to EPA?

One problem with more stringent container requirements suggested by laundry representatives is that vapor emissions are constantly being generated. Even if emissions are eliminated during transport, release of the vapors are delayed until receipt by the laundry. This could pose occupational and environmental problems. Laundries questioned the net environmental benefit of delaying emissions of solvents until laundering occurs. Once the container is opened, solvent

emissions will occur. There was concern that the new requirements would concentrate solvent emissions at industrial laundries and potentially make them the subject of a NESHAP determination. There also was concern about high vapor pressure and the potential for spontaneous combustion with the requirement for closed containers.

Conclusions

At the end of the meeting, EPA asked those representing the industrial laundries if they would like to see the proposal stopped, or if there is some way for the options to become workable.

Laundry representatives would like to keep the status quo. They see some advantages to an EPA rule that establishes a national program, particularly for laundries that accept wastes from federal facilities. A federal rule would "raise the bar" because it would supercede existing State policies and result potentially in more federal oversight. The biggest difficulty is risk from passive noncompliance, where rags would be nonhazardous when picked up, but could become a hazardous waste during transport or receipt by the laundry through no action by the laundry. The laundries have significant concerns about their potential liabilities under RCRA. This is a significant problem with the options, and they do not see how it could be solved and could not offer any alternatives or modifications to the existing options.

Attachment 1
Materials Available to Meeting Participants

This attachment includes a copy of the agenda, the two options suggested by EPA, and a list of questions for discussion.

Agenda for Morning Session (the agenda for the afternoon session is similar)

10:00 a.m.	Introductions
10:10 a.m.	Opening Remarks (Elizabeth Cotsworth in morning session, Matt Hale in afternoon session)
10:25 a.m.	Overview of Options/Questions for Discussion (Dave Bussard)
11:55 a.m.	Next Steps

Option 1 Being Evaluated by EPA: Simple Conditional Exemption

Draft Regulatory Language

Industrial towels, wipes, and rags that contain hazardous solvents are not hazardous wastes subject to regulation under 40 CFR parts 260, 261 to 266, 268 and 270 so long as:

(1) at the generation site, and if transported off-site, these materials are stored in closed containers labeled "solvent-contaminated shop towels" or "solvent-contaminated wipes" or "solvent-contaminated rags",

(2) prior to being transported off-site, they do not release any liquid when wrung, and

(3) the materials go to an industrial laundry or to a facility allowed by State law to accept solid waste.

Option 2 Being Evaluated by EPA: A conditional exemption, but potential risks addressed explicitly for disposal of solvent-contaminated wipes, rags and shop towels in a municipal solid waste landfills (MSWLFs) and industrial laundries managing large amounts of solvent-contaminated shop towels, wipes or rags.

Draft Regulatory Language

Industrial towels, wipes, and rags that contain hazardous solvents are not hazardous wastes subject to regulation under 40 CFR parts 260, 261 to 266, 268 and 270 so long as:

(1) at the generation site, and if transported off-site, these materials are stored in closed containers labeled "solvent-contaminated shop towels" or "solvent-contaminated wipes" or "solvent-contaminated rags",

(2) prior to being transported off-site, they do not release any liquid when wrung, and

(3) these materials are either:

(a) disposed of in a MSWLF or a Subtitle C landfill after they are shown to be dry (less than 5 grams per wipe, rag or towel, on average) and they do not contain one of the following solvents found in Table X (to be determined),

(b) recycled in an industrial laundry subject to CWA requirements, and the industrial laundry either receives less than XX lbs of solvent-contaminated shop towels annually (to be determined), or (2) assures that the shop towels containing hazardous solvents are dry (less than 5 grams of solvent) before entering the laundering process.

(c) managed in an industrial dry cleaner subject to CWA requirements, or is a zero discharger of dry cleaning waste water pollutants

(d) managed in a municipal waste combustor subject to CAA requirements, or

(e) managed in a state approved facility

Questions for Stakeholders

1. Are the options clear and understandable? Where is greater clarity required to improve implementation?

2. How difficult do you believe it could be for generators or industrial laundries to determine the types of solvents they use; i.e., listed, characteristically-hazardous or non-hazardous, in conjunction with industrial wipes, rags or shop towels?

3. How difficult do you believe it could be for generators to meet the "one drop test"? Is clarifying guidance necessary to identify situations where meeting the one drop test could pose a problem, or conversely be easily met?

4. Is there a better, more user-friendly term other than "dry" wipe or towel, or the 5 grams performance standard for the amount of solvent that could be used to help both generators and managers of solvent wipes or shop towels know when a condition for the exemption is met?

5. How responsive will local governments be in allowing disposable rags and wipes meeting the above conditions to be managed in a municipal solid waste landfill or municipal waste combustor?

6. How difficult might it be for affected industrial laundries to segregate out and "tag" different types of problem shop towels or printer towels?

7. How difficult might it be to meet the closed container standard?

Attachment 2. Meeting Attendees for January 21, 2000 Morning Session

Name	Organization	Phone
Jeff Adrian	John Roberts Company (Teleconference)	612-754-4420
Michele Anders	Technical Group/GE	202-962-8548
Russ Batson	American Furniture Manufacturers Association	202-460-7362
Karl Bourdëau	Beveridge and Diamond for INDA	202-789-6019
Bernard Brill	SMART	301-656-1077
Keith Cole	Printing Industries of America, Inc. (Teleconference)	703-519-8115
Ralph Colleli	API	202-681-8252
Andy Counts	AFMA	336-884-5000
Doug Greenhus	NADA	703-821-7040
Larry Groipan	ERC Wiping Products, Inc. (Teleconference)	617-821-6300
Cathleen Hazzard	SWANA	301-585-2898
James Hunt	Quebecor World, Inc.	410-760-9147
Gary Jones	Graphic Airs Tech. Foundation (Teleconference)	412-741-6860
Marci Kinter	SGIA	703-359-1313
Amy Lilly	AIAM	703-525-7788
Peter Mayberry	INDA	703-847-6747
Bob Peterson	DuPont (Teleconference)	
Glynn Roundtree	AIA	202-371-8401
Ralph Solarski	Kimberly-Clark	770-587-8140
David B. Sussman	Poubelle Associates	202-554-6020
Valerie Ughetta	Alliance of Automotive Manufacturers	202-326-5549
Emil Wigode	Flexible Packaging Association	202-682-4514
Dan Williams	Cryovac Seal Air Corp. (Teleconference)	864-433-3167
Maria Zannes	Integrated Waste Services Association	202-467-6240
Elizabeth Cotsworth	OSW/EPA	703-308-8895
David Bussard	OSW/EPA	703-308-8880
Jim O'Leary	OSW/EPA	703-308-8827
Bob Tonetti	OSW/EPA	703-308-8878
Adam Klinger	OSW/EPA	703-308-3267

Name	Organization	Phone
John Vierow	SAIC	703-318-4551
Mary Wolfe	SAIC	703-318-4612

Meeting Attendees for January 21, 2000 Afternoon Session

Name	Organization	Phone
Jeff Adrian	John Roberts Company (Teleconference)	612-754-4420
Michele Anders	Technical Group/GE	202-962-8548
Keith Cole	Printing Industries (Teleconference)	703-519-8115
Andy Counts	AFMA	336-884-5000
Mike Culliton	Brent Industries, Inc.	205-926-4801
David Dunlap	UTSA	703-247-2608
Doug Greenhus	NADA	703-821-7040
Bill Guerry	UTSA/TRSA Counsel	202-342-8858
Bill Hughes	Omni Services, Inc.	540-829-4761
James Hunt	Quebecor World, Inc.	410-760-9147
Gary Jones	(Teleconference)	
Marci Kinter	SGIA	703-359-1313
Glynn Roundtree	AIA	202-371-8401
David Trimble	TRSA	202-833-6395
Valerie Ughetta	Alliance of Automotive Manufacturers	202-326-5549
Royce Willie	Brent Industries, Inc.	205-926-4801
Matt Hale	OSW/EPA	703-308-8895
David Bussard	OSW/EPA	703-308-8880
Jim O'Leary	OSW/EPA	703-308-8827
Bob Tonetti	OSW/EPA	703-308-8878
John Vierow	SAIC	703-318-4551
Mary Wolfe	SAIC	703-318-4612